

and III be combined in the examination. Applicants would like to thank Examiner Qazi for indicating her willingness to combine two Groups. The Office Action states that Groups I and II were combined as requested by applicants. It appears that Examiner Qazi intended to mean that Groups II and III were combined. Applicants request that Examiner Qazi acknowledged that Groups II and III were examined on the merits.

Claim Rejection — 35 U.S.C. 103

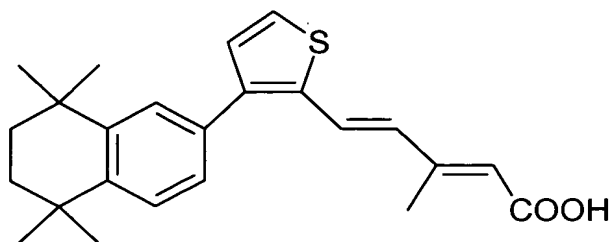
Claims 12-32 were rejected as obvious over the abstract of Apfel et al (J. Biol. Chem., vol. 270, pp. 30765-72, 1995). Applicants respectfully traverse the rejection.

The Office Action cites the abstract of Apfel et al to support its statements: "Apfel et al teaches a generic group of compounds which embraces applicant's claimed compounds. See the abstract (enclosed). These structurally similar compounds are taught to be useful for selective activity as retinoid receptor."

Applicants have studied the abstract of Apfel et al carefully but failed to find any teaching of the generic group of compounds that embraces the compounds of the instant claims. The abstract of Apfel et al reported that several conformationally restricted retinoids were identified and characterized, which selectively bind and activate RX receptors.

However, the abstract of Apfel et al relied upon by the Office Action does not disclose the chemical structures of all the conformationally restricted RXR-specific retinoids

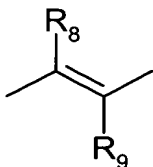
reported. Attached to the abstract is the disclosure of a RXR-specific retinoid, 173104-28-4, which has a chemical formula shown below.



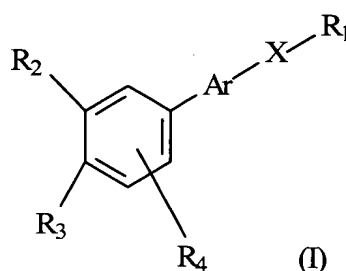
173104-28-4

The Office Action asserts that, when R_1 represents COOH, the claims differ from Apfel et al by reciting specific species and/or a more limited subgenus than Apfel et al.

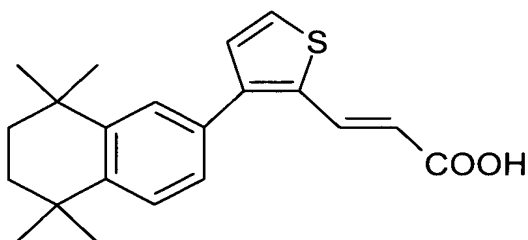
However, applicants note that, when R_1 represents COOH (i.e. R_1 represents -COR₆, R_6 represents -OR₁₁, and R_{11} represents H), the compounds of claims 12-32 differ significantly from 173104-28-4. When Ar is thienyl and X is



then the bicyclic aromatic compound having the general formula (I) in claim 12,

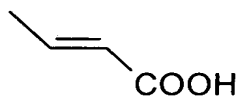


could become

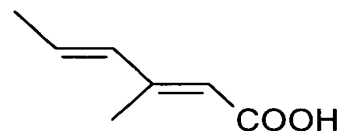


(one of the compounds of formula (I) in claim 12).

But this potential compound of formula (I) in claim 12 differs from 173104-28-4 in having



instead of



attached to the thienyl ring. The difference in the side chains attached to the thienyl rings in this potential species of the compounds of formula (I) and 173104-28-4 is huge. There is no teaching or suggestion in the prior art of modifying the retinoids of Apfel et al by replacing the carboxy-substituted butadienyl side chain in 173104-28-4 with a carboxy-substituted ethenyl side chain to arrive at one of the species of the compounds of claim 12. This is a reason why claims 12-32 would not have been rendered obvious by Apfel et al.

Another reason why claims 14 and 25 would not have been obvious over Apfel et al is that Apfel et al provides no guidance to the specific compounds named in claims 14 and 25. Without any guidance, one of ordinary skill in the art would not have any motivation of making the specific compounds of claims 14 and 25.

Withdrawal of the obviousness rejection is requested.

Conclusion

With the above reasoning, applicants respectfully submit that the issuance of a Notice of Allowance is believed in order and earnestly solicited.

Respectfully submitted,

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